



SEQUENCE LISTING

<110> Alnemri, Emad S.
Fernandez-Alnemri, Teresa

<120> CASPASE-14, AN APOTOTIC PROTEASE, NUCLEIC ACID ENCODING
AND METHODS OF USE

<130> 480140.434D1

<140> US 09/989,903

<141> 2001-11-20

<160> 78

<170> PatentIn Ver. 2.0

<210> 1

<211> 850

<212> DNA

<213> Mus musculus

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<221> modified_base

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<223> Where n is Adenine, Cytosine, Guanine or Thymine

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gagcctgtca gctgtgcctt tgtggtactc atggcacatg gtgaggaagg cctcctcaag 360
ggagaagatg agaagatggt cagactagaa gacctttttg aagtcttgaa caacaagaac 420
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acagaagaga tcacccgact tatggcaaac acggaggtga tgcaggaagg aaaaccaagg 780
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30 35 40 45

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Ala Gln Gln Phe Leu Glu Glu Leu Asp Glu Phe Gln Gln Thr Ile Asp
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Asn Trp Glu Glu Pro Val Ser Cys Ala Phe Val Val Leu Met Ala His
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Gly Glu Glu Gly Leu Leu Lys Gly Glu Asp Glu Lys Met Val Arg Leu
95 100 105

Glu Asp Leu Phe Glu Val Leu Asn Asn Lys Asn Cys Lys Ala Leu Arg
110 115 120 125

Gly Lys Pro Lys Val Tyr Ile Ile Gln Ala Cys Arg Gly Glu His Arg
130 135 140

Asp Pro Gly Glu Glu Leu Arg Gly Asn Glu Glu Leu Gly Gly Asp Glu
145 150 155

Glu Leu Gly Gly Asp Glu Val Ala Val Leu Lys Asn Asn Pro Gln Ser
160 165 170

Ile Pro Thr Tyr Thr Asp Thr Leu His Ile Tyr Ser Thr Val Glu Gly
175 180 185

Tyr Leu Ser Tyr Arg His Asp Glu Lys Gly Ser Gly Phe Ile Gln Thr
190 195 200 205

Leu Thr Asp Val Phe Ile His Lys Lys Gly Ser Ile Leu Glu Leu Thr
210 215 220

Glu Glu Ile Thr Arg Leu Met Ala Asn Thr Glu Val Met Gln Glu Gly
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<222> (49)...(774)

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  20                               25                30                35

ctg gat gct ctg gaa cac atg ttt cgg cag ctg aga ttc gaa agc acc      201
Leu Asp Ala Leu Glu His Met Phe Arg Gln Leu Arg Phe Glu Ser Thr
                40                45                50

atg aaa aga gac ccc act gcc gag caa ttc cag gaa gag ctg gaa aaa      249
Met Lys Arg Asp Pro Thr Ala Glu Gln Phe Gln Glu Glu Leu Glu Lys
                55                60                65

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Phe Gln Gln Ala Ile Asp Ser Arg Glu Asp Pro Val Ser Cys Ala Phe
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gtg gta ctc atg gct cac ggg agg gaa ggc ttc ctc aag gga gaa gat      345
Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys Gly Glu Asp
   85                               90                95

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Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu Asn Asn Lys
 100                105                110                115

aac tgc cag gcc ctg cga gct aag ccc aag gtg tac atc ata cag gcc      441
Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile Ile Gln Ala
                120                125                130

tgt cga gga gaa caa agg gac ccc ggt gaa aca gta ggt gga gat gag      489
Cys Arg Gly Glu Gln Arg Asp Pro Gly Glu Thr Val Gly Gly Asp Glu
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att gtg atg gtc atc aaa gac agc cca caa acc atc cca aca tac aca      537
Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro Thr Tyr Thr
                150                155                160

gat gcc ttg cac gtt tat tcc acg gta gag gga tac atc gcc tac cga      585
Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Tyr Ile Ala Tyr Arg
 165                170                175

cat gat cag aaa ggc tca tgc ttt atc cag acc ctg gtg gat gtg ttc      633

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Thr	Lys	Arg	Lys	Gly	His	Ile	Leu	Glu	Leu	Leu	Thr	Glu	Val	Thr	Arg		
				200					205					210			
cgg	atg	gca	gaa	gca	gag	ctg	gtt	caa	gaa	gga	aaa	gca	agg	aaa	acg	729	
Arg	Met	Ala	Glu	Ala	Glu	Leu	Val	Gln	Glu	Gly	Lys	Ala	Arg	Lys	Thr		
			215					220					225				
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Asn	Pro	Glu	Ile	Gln	Ser	Thr	Leu	Arg	Lys	Arg	Leu	Tyr	Leu	Gln			
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tag																777	

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Glu	Glu	Asp	Leu	Asp	Ala	Leu	Glu	His	Met	Phe	Arg	Gln	Leu	Arg	Phe	
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Glu	Ser	Thr	Met	Lys	Arg	Asp	Pro	Thr	Ala	Glu	Gln	Phe	Gln	Glu	Glu	
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Leu	Glu	Lys	Phe	Gln	Gln	Ala	Ile	Asp	Ser	Arg	Glu	Asp	Pro	Val	Ser	
65				70					75						80	
Cys	Ala	Phe	Val	Val	Leu	Met	Ala	His	Gly	Arg	Glu	Gly	Phe	Leu	Lys	
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Gly	Glu	Asp	Gly	Glu	Met	Val	Lys	Leu	Glu	Asn	Leu	Phe	Glu	Ala	Leu	
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Ile	Gln	Ala	Cys	Arg	Gly	Glu	Gln	Arg	Asp	Pro	Gly	Glu	Thr	Val	Gly	
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Gly	Asp	Glu	Ile	Val	Met	Val	Ile	Lys	Asp	Ser	Pro	Gln	Thr	Ile	Pro	
145				150					155					160		
Thr	Tyr	Thr	Asp	Ala	Leu	His	Val	Tyr	Ser	Thr	Val	Glu	Gly	Tyr	Ile	
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Ala	Tyr	Arg	His	Asp	Gln	Lys	Gly	Ser	Cys	Phe	Ile	Gln	Thr	Leu	Val	
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Asp	Val	Phe	Thr	Lys	Arg	Lys	Gly	His	Ile	Leu	Glu	Leu	Leu	Thr	Glu	
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Leu Asp Ala Leu Glu His Met Phe Arg Gln Leu Arg Phe Glu Ser Thr																	
40 45 50																	
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Met Lys Arg Asp Pro Thr Ala Glu Gln Phe Gln Glu Glu Leu Glu Lys																	
55 60 65																	
ttc cag cag gcc atc gat tcc cgg gaa gat ccc gtc agt tgt gcc ttc																	296
Phe Gln Gln Ala Ile Asp Ser Arg Glu Asp Pro Val Ser Cys Ala Phe																	
70 75 80																	
gtg gta ctc atg gct cac ggg agg gaa ggc ttc ctc aag gga gaa gat																	344
Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys Gly Glu Asp																	
85 90 95																	
ggg gag atg gtc aag ctg gag aat ctc ttc gag gcc ctg aac aac aag																	392
Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu Asn Asn Lys																	
100 105 110 115																	
aac tgc cag gcc ctg cga gct aag ccc aag gtg tac atc ata cag gcc																	440
Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile Ile Gln Ala																	
120 125 130																	
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Cys Arg Gly Glu Gln Arg Asp Pro Gly Glu Thr Val Gly Gly Asp Glu																	
135 140 145																	
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Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro Thr Tyr Thr																	
150 155 160																	
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Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Pro Thr Pro Phe Gln																	
165 170 175																	

gat ccc ctc tac cta ccc tct gaa gct ccc ccg aac cca cct ctc tgg 632
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 180 185 190 195

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 200 205 210

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 215 220 225

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 35 40 45
 Glu Ser Thr Met Lys Arg Asp Pro Thr Ala Glu Gln Phe Gln Glu Glu
 50 55 60
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 65 70 75 80
 Cys Ala Phe Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys
 85 90 95
 Gly Glu Asp Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu
 100 105 110
 Asn Asn Lys Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile
 115 120 125
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 130 135 140
 Gly Asp Glu Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro
 145 150 155 160
 Thr Tyr Thr Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Pro Thr
 165 170 175
 Pro Phe Gln Asp Pro Leu Tyr Leu Pro Ser Glu Ala Pro Pro Asn Pro
 180 185 190
 Pro Leu Trp Asn Ser Gln Asp Thr Ser Pro Thr Asp Met Ile Arg Lys
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Glu	Leu	Glu	Lys	Phe	Gln	Gln	Ala	Ile	Asp	Ser	Arg	Glu	Asp	Pro	Val		
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Ser	Cys	Ala	Phe	Val	Val	Leu	Met	Ala	His	Gly	Arg	Glu	Gly	Phe	Leu		
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Lys	Gly	Glu	Asp	Gly	Glu	Met	Val	Lys	Leu	Glu	Asn	Leu	Phe	Glu	Ala		
70				75				80									
ctg	aac	aac	aag	aac	tgc	cag	gcc	ctg	cga	gct	aag	ccc	aag	gtg	tac		345
Leu	Asn	Asn	Lys	Asn	Cys	Gln	Ala	Leu	Arg	Ala	Lys	Pro	Lys	Val	Tyr		
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Gly	Gly	Asp	Glu	Ile	Val	Met	Val	Ile	Lys	Asp	Ser	Pro	Gln	Thr	Ile		
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Pro	Thr	Tyr	Thr	Asp	Ala	Leu	His	Val	Tyr	Ser	Thr	Val	Glu	Gly	Tyr		
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Ile	Ala	Tyr	Arg	His	Asp	Gln	Lys	Gly	Ser	Cys	Phe	Ile	Gln	Thr	Leu		
150				155				160									
gtg	gat	gtg	ttc	acg	aag	agg	aaa	gga	cat	atc	ttg	gaa	ctt	ctg	aca		585
Val	Asp	Val	Phe	Thr	Lys	Arg	Lys	Gly	His	Ile	Leu	Glu	Leu	Leu	Thr		
165				170				175									

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gca agg aaa acg aac cct gaa atc caa agc acc ctc cgg aaa cgg ctg 681
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 35 40 45
 Asp Pro Val Ser Cys Ala Phe Val Val Leu Met Ala His Gly Arg Glu
 50 55 60
 Gly Phe Leu Lys Gly Glu Asp Gly Glu Met Val Lys Leu Glu Asn Leu
 65 70 75 80
 Phe Glu Ala Leu Asn Asn Lys Asn Cys Gln Ala Leu Arg Ala Lys Pro
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 Lys Val Tyr Ile Ile Gln Ala Cys Arg Gly Glu Gln Arg Asp Pro Gly
 100 105 110
 Glu Thr Val Gly Gly Asp Glu Ile Val Met Val Ile Lys Asp Ser Pro
 115 120 125
 Gln Thr Ile Pro Thr Tyr Thr Asp Ala Leu His Val Tyr Ser Thr Val
 130 135 140
 Glu Gly Tyr Ile Ala Tyr Arg His Asp Gln Lys Gly Ser Cys Phe Ile
 145 150 155 160
 Gln Thr Leu Val Asp Val Phe Thr Lys Arg Lys Gly His Ile Leu Glu
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 35 40 45
 Cys Pro Gly Leu Arg Asp Lys Pro Lys Val Ile Ile Val Gln Ala Cys
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 35 40 45
 Cys His Leu Phe Asp Ile Phe Leu Lys Val Gln Gln Ser Phe Glu Lys
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Lys Asn Val Leu Asn Gly Asp Glu Leu Leu Lys Ile Gly Glu Ser Ala
 35 40 45

Ser Phe Ile Leu Asn Lys Ala Glu Asn Leu Val Glu Asn Phe Leu Glu
 50 55 60

Lys Thr Asp Met Ala Gly Lys Ile Phe Ala Gly His Ile Ala Asn Ser
 65 70 75 80

Gln Glu Gln Leu Ser Leu Gln Phe Ser Asn Asp Glu Asp Asp Gly Pro
 85 90 95

Gln Lys Ile Cys Thr Pro Ser Ser Pro Ser Glu Ser Lys Arg Lys Val
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Glu Asp Asp Glu Met Glu Val Asn Ala Gly Leu Ala His Glu Ser His
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Leu Met Leu Thr Ala Pro His Gly Leu Gln Ser Ser Glu Val Gln Asp
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Asp Val Leu His Asp Asp Thr Ile Phe Lys Ile Phe Asn Asn Ser Asn
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Ser Thr Asn Lys Gly Ile Ala Thr Ala Asp Thr Asp Glu Glu Arg Val
 1              5              10              15

Leu Ser Cys Lys Trp
      20

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<210> 20

<211> 90

<212> PRT

<213> Mus musculus

<400> 20

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Asn Asn Ser Ile Thr Lys Ala His Val Glu Thr Asp Phe Ile Ala Phe
 1              5              10              15

Lys Ser Ser Thr Pro His Asn Ile Ser Trp Arg Val Gly Lys Thr Gly
      20              25              30

Ser Leu Phe Ile Ser Lys Leu Ile Asp Cys Phe Lys Lys Tyr Cys Trp
      35              40              45

Cys Tyr His Leu Glu Glu Ile Phe Arg Lys Val Gln His Ser Phe Glu
      50              55              60

Val Pro Gly Glu Leu Thr Gln Met Pro Thr Ile Glu Arg Val Ser Met
      65              70              75              80

Thr Arg Tyr Phe Tyr Leu Phe Pro Gly Asn
      85              90

```

<210> 21
 <211> 119
 <212> PRT
 <213> Mus musculus

<400> 21
 Met Ala Asp Lys Ile Leu Arg Ala Lys Arg Lys Gln Phe Ile Asn Ser
 1 5 10 15
 Val Ser Ile Gly Thr Ile Asn Gly Leu Leu Asp Glu Leu Leu Glu Lys
 20 25 30
 Arg Val Leu Asn Gln Glu Glu Met Asp Lys Ile Lys Leu Ala Asn Ile
 35 40 45
 Thr Ala Met Asp Lys Ala Arg Asp Leu Cys Asp His Val Ser Lys Lys
 50 55 60
 Gly Pro Gln Ala Ser Gln Ile Phe Ile Thr Tyr Ile Cys Asn Glu Asp
 65 70 75 80
 Cys Tyr Leu Ala Gly Ile Leu Glu Leu Gln Ser Ala Pro Ser Ala Glu
 85 90 95
 Thr Phe Val Ala Thr Glu Asp Ser Lys Gly Gly His Pro Ser Ser Ser
 100 105 110
 Glu Thr Lys Glu Glu Gln Asn
 115

<210> 22
 <211> 11
 <212> PRT
 <213> Mus musculus

<400> 22
 Lys Glu Asp Gly Thr Phe Pro Gly Leu Thr Gly
 1 5 10

<210> 23
 <211> 28
 <212> PRT
 <213> Mus musculus

<400> 23
 Thr Leu Lys Phe Cys Pro Leu Glu Lys Ala Gln Lys Leu Trp Lys Glu
 1 5 10 15
 Asn Pro Ser Glu Ile Tyr Pro Ile Met Asn Thr Thr
 20 25

<210> 24
 <211> 62
 <212> PRT

<213> Mus musculus

<400> 24

```

Thr Arg Thr Arg Leu Ala Leu Ile Ile Cys Asn Thr Glu Phe Gln His
 1           5           10           15
Leu Ser Pro Arg Val Gly Ala Gln Val Asp Leu Arg Glu Met Lys Leu
          20           25           30
Leu Leu Glu Asp Leu Gly Tyr Thr Val Lys Val Lys Glu Asn Leu Thr
          35           40           45
Ala Leu Glu Met Val Lys Glu Val Lys Glu Phe Ala Ala Cys
          50           55           60

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<210> 25

<211> 77

<212> PRT

<213> Mus musculus

<400> 25

```

Pro Glu His Lys Thr Ser Asp Ser Thr Phe Leu Val Phe Met Ser His
 1           5           10           15
Gly Ile Gln Glu Gly Ile Cys Gly Thr Thr Tyr Ser Asn Glu Val Ser
          20           25           30
Asp Ile Leu Lys Val Asp Thr Ile Phe Gln Met Met Asn Thr Leu Lys
          35           40           45
Cys Pro Ser Leu Lys Asp Lys Pro Lys Val Ile Ile Ile Gln Ala Cys
          50           55           60
Arg Gly Glu Lys Gln Gly Val Val Leu Leu Lys Asp Ser
          65           70           75

```

<210> 26

<211> 105

<212> PRT

<213> Mus musculus

<400> 26

```

Val Arg Asp Ser Glu Glu Asp Phe Leu Thr Asp Ala Ile Phe Glu Asp
 1           5           10           15
Asp Gly Ile Lys Lys Ala His Ile Glu Lys Asp Phe Ile Ala Phe Cys
          20           25           30
Ser Ser Thr Pro Asp Asn Val Ser Trp Arg His Pro Val Arg Gly Ser
          35           40           45
Leu Phe Ile Glu Ser Leu Ile Lys His Met Lys Glu Tyr Ala Trp Ser
          50           55           60
Cys Asp Leu Glu Asp Ile Phe Arg Lys Val Arg Phe Ser Phe Glu Gln

```

<400> 29
Glu Asp His Ser Lys Arg Ser Ser Phe Val Cys Val Ile Leu Ser His
1 5 10 15
Gly Asp Glu Gly Val Ile Tyr Gly Thr Asn Gly Pro
20 25

<210> 30
 <211> 39
 <212> PRT
 <213> Mus musculus

<400> 30
 Val Glu Leu Lys Lys Leu Thr Ser Phe Phe Arg Gly Asp Tyr Cys Arg
 1 5 10 15
 Ser Leu Thr Gly Lys Pro Lys Leu Phe Ile Ile Gln Ala Cys Arg Gly
 20 25 30
 Thr Glu Leu Asp Cys Gly Ile
 35

<210> 31
 <211> 4
 <212> PRT
 <213> Mus musculus

<400> 31
 Glu Thr Asp Ser
 1

<210> 32
 <211> 7
 <212> PRT
 <213> Mus musculus

<400> 32
 Thr Asp Glu Glu Met Ala Cys
 1 5

<210> 33
 <211> 42
 <212> PRT
 <213> Mus musculus

<400> 33
 Gln Lys Ile Pro Val Glu Ala Asp Phe Leu Tyr Ala Tyr Ser Thr Ala
 1 5 10 15
 Pro Gly Tyr Tyr Ser Trp Arg Asn Ser Lys Asp Gly Ser Trp Phe Ile
 20 25 30
 Gln Ser Leu Cys Ser Met Leu Lys Leu Tyr
 35 40

<210> 34
 <211> 51
 <212> PRT
 <213> Mus musculus

<400> 34

Ala His Lys Leu Glu Phe Met His Ile Leu Thr Arg Val Asn Arg Lys
 1 5 10 15

Val Ala Thr Glu Phe Glu Ser Phe Ser Leu Asp Ser Thr Phe His Ala
 20 25 30

Lys Lys Gln Ile Pro Cys Ile Val Ser Met Leu Thr Lys Glu Leu Tyr
 35 40 45

Phe Tyr His
 50

<210> 35

<211> 81

<212> PRT

<213> Mus musculus

<400> 35

Met Thr Asp Asp Gln Asp Cys Ala Ala Glu Leu Glu Lys Val Asp Ser
 1 5 10 15

Ser Ser Glu Asp Gly Val Asp Ala Lys Pro Asp Arg Ser Ser Ile Ile
 20 25 30

Ser Ser Ile Leu Leu Lys Lys Lys Arg Asn Ala Ser Ala Gly Pro Val
 35 40 45

Arg Thr Gly Arg Asp Arg Val Pro Thr Tyr Leu Tyr Arg Met Asp Phe
 50 55 60

Gln Lys Met Gly Lys Cys Ile Ile Ile Asn Asn Lys Asn Phe Asp Lys
 65 70 75 80

Ala

<210> 36

<211> 47

<212> PRT

<213> Mus musculus

<400> 36

Thr Gly Met Asp Val Arg Asn Gly Thr Asp Lys Asp Ala Gly Ala Leu
 1 5 10 15

Phe Lys Cys Phe Gln Asn Leu Gly Phe Glu Val Thr Val His Asn Asp
 20 25 30

Cys Ser Cys Ala Lys Met Gln Asp Leu Leu Arg Lys Ala Ser Glu
 35 40 45

<210> 37

<211> 28

<212> PRT
 <213> Mus musculus

<400> 37
 Glu Asp His Ser Asn Ser Ala Cys Phe Ala Cys Val Leu Leu Ser His
 1 5 10 15
 Gly Glu Glu Asp Leu Ile Tyr Gly Lys Asp Gly Val
 20 25

<210> 38
 <211> 39
 <212> PRT
 <213> Mus musculus

<400> 38
 Thr Pro Ile Lys Asp Leu Thr Ala His Phe Arg Gly Asp Arg Cys Lys
 1 5 10 15
 Thr Leu Leu Glu Lys Pro Lys Leu Phe Phe Ile Gln Ala Cys Arg Gly
 20 25 30
 Thr Glu Leu Asp Asp Gly Ile
 35

<210> 39
 <211> 4
 <212> PRT
 <213> Mus musculus

<400> 39
 Gln Ala Asp Ser
 1

<210> 40
 <211> 52
 <212> PRT
 <213> Mus musculus

<400> 40
 Pro Ile Asn Asp Ile Asp Ala Asn Pro Arg Asn Lys Ile Pro Val Glu
 1 5 10 15
 Ala Asp Phe Leu Phe Ala Tyr Ser Thr Val Pro Gly Tyr Tyr Ser Trp
 20 25 30
 Arg Asn Pro Gly Lys Gly Ser Trp Phe Val Gln Ala Leu Cys Ser Ile
 35 40 45
 Leu Asn Glu His
 50

<210> 41

<211> 51
 <212> PRT
 <213> Mus musculus

<400> 41
 Gly Lys Asp Leu Glu Ile Met Gln Ile Leu Thr Arg Val Asn Asp Arg
 1 5 10 15
 Val Ala Arg His Phe Glu Ser Gln Ser Asp Asp Pro Arg Phe Asn Glu
 20 25 30
 Lys Lys Gln Ile Pro Cys Met Val Ser Met Leu Thr Lys Glu Leu Tyr
 35 40 45
 Phe Ser Arg
 50

<210> 42
 <211> 41
 <212> PRT
 <213> Mus musculus

<400> 42
 Met Thr Glu Thr Asp Gly Phe Tyr Lys Ser Arg Glu Val Phe Asp Pro
 1 5 10 15
 Ala Glu Gln Tyr Lys Met Asp His Lys Arg Arg Gly Val Ala Leu Ile
 20 25 30
 Phe Asn His Glu Arg Phe Phe Trp His
 35 40

<210> 43
 <211> 47
 <212> PRT
 <213> Mus musculus

<400> 43
 Leu Thr Leu Pro Glu Arg Arg Gly Thr Asn Ala Asp Arg Asp Asn Leu
 1 5 10 15
 Thr Arg Arg Phe Ser Asp Leu Gly Phe Glu Val Lys Cys Phe Asn Asp
 20 25 30
 Leu Arg Ala Glu Glu Leu Leu Leu Lys Ile His Glu Val Ser Thr
 35 40 45

<210> 44
 <211> 28
 <212> PRT
 <213> Mus musculus

<400> 44
 Ser Ser His Ile Asp Ala Asp Cys Phe Ile Cys Val Phe Leu Ser His

1 5 10 15
 Gly Glu Gly Asn His Val Tyr Ala Tyr Asp Ala Lys
 20 25

 <210> 45
 <211> 51
 <212> PRT
 <213> Mus musculus

 <400> 45
 Ile Glu Ile Gln Thr Leu Thr Gly Leu Phe Lys Gly Asp Lys Cys Gln
 1 5 10 15
 Ser Leu Val Gly Lys Pro Lys Ile Phe Ile Ile Gln Ala Cys Arg Gly
 20 25 30
 Ser Gln His Asp Val Pro Val Val Pro Leu Asp Met Val Asp His Gln
 35 40 45
 Thr Asp Lys
 50

 <210> 46
 <211> 52
 <212> PRT
 <213> Mus musculus

 <400> 46
 Asn Val Thr Gln Val Asp Ala Ala Ser Val Tyr Thr Leu Pro Ala Gly
 1 5 10 15
 Ala Asp Phe Leu Met Cys Tyr Ser Val Ala Glu Gly Tyr Tyr Ser His
 20 25 30
 Arg Glu Thr Val Asn Gly Ser Trp Tyr Ile Gln Asp Leu Cys Glu Met
 35 40 45
 Leu Ala Arg Tyr
 50

 <210> 47
 <211> 55
 <212> PRT
 <213> Mus musculus

 <400> 47
 Gly Ser Ser Leu Glu Phe Thr Glu Leu Leu Thr Leu Val Asn Arg Lys
 1 5 10 15
 Val Ser Gln Arg Arg Val Asp Phe Cys Lys Asp Pro Asp Ala Ile Gly
 20 25 30
 Lys Lys Gln Val Pro Cys Phe Ala Ser Met Leu Thr Lys Lys Leu His

35	40	45
Phe Cys Pro Lys Pro Ser Lys		
50	55	
 <210> 48		
<211> 250		
<212> PRT		
<213> Mus musculus		
 <400> 48		
Met Asp Phe Gln Ser Cys Leu Asp Ala Ile Ala Glu Glu Leu Gly Ser		
1	5	10 15
Glu Asp Leu Ala Ala Leu Lys Phe Leu Cys Leu Asp Tyr Ile Pro His		
	20	25 30
Lys Lys Leu Glu Thr Ile Glu Asp Ala Gln Lys Leu Phe Leu Arg Leu		
	35	40 45
Arg Glu Lys Gly Met Leu Glu Glu Gly Asn Leu Ser Phe Leu Lys Glu		
	50	55 60
Leu Leu Phe His Ile Ser Arg Trp Asp Leu Leu Val Asn Phe Leu Asp		
	65	70 75 80
Cys Asn Arg Glu Glu Met Val Arg Glu Leu Arg Asp Pro Arg Gln Cys		
	85	90 95
Pro Arg Phe Leu Pro Tyr Arg Ser Cys Ser Phe Arg Leu Ser Glu Glu		
	100	105 110
Val Ser Glu Leu Glu Leu Arg Ser Phe Lys Phe Leu Leu Asn Asn Glu		
	115	120 125
Ile Pro Lys Cys Lys Leu Glu Asp Asp Leu Ser Leu Leu Glu Ile Phe		
	130	135 140
Val Glu Met Glu Lys Arg Thr Met Leu Ala Glu Asn Asn Leu Glu Thr		
	145	150 155 160
Leu Lys Ser Ile Cys Asp Gln Val Asn Lys Ser Leu Leu Gly Lys Ile		
	165	170 175
Glu Asp Tyr Glu Arg Ser Ser Thr Glu Arg Arg Met Ser Leu Glu Gly		
	180	185 190
Arg Glu Glu Leu Pro Pro Ser Val Leu Asp Glu Met Ser Leu Lys Met		
	195	200 205
Ala Glu Leu Cys Asp Ser Pro Arg Glu Gln Asp Ser Glu Ser Arg Thr		
	210	215 220
Ser Asp Lys Val Tyr Gln Met Lys Asn Lys Pro Arg Gly Tyr Cys Leu		
	225	230 235 240

Ile Ile Asn Asn His Asp Phe Ser Lys Ala
 245 250

<210> 49
 <211> 54
 <212> PRT
 <213> Mus musculus

<400> 49
 Arg Glu Asp Ile Thr Gln Leu Arg Lys Met Lys Asp Arg Lys Gly Thr
 1 5 10 15
 Asp Cys Asp Lys Glu Ala Leu Ser Lys Thr Phe Lys Glu Leu His Phe
 20 25 30
 Glu Ile Val Ser Tyr Asp Asp Cys Thr Ala Asn Glu Ile His Glu Ile
 35 40 45
 Leu Glu Gly Tyr Gln Ser
 50

<210> 50
 <211> 28
 <212> PRT
 <213> Mus musculus

<400> 50
 Ala Asp His Lys Asn Lys Asp Cys Phe Ile Cys Cys Ile Leu Ser His
 1 5 10 15
 Gly Asp Lys Gly Val Val Tyr Gly Thr Asp Gly Lys
 20 25

<210> 51
 <211> 52
 <212> PRT
 <213> Mus musculus

<400> 51
 Glu Ala Ser Ile Tyr Asp Leu Thr Ser Tyr Phe Thr Gly Ser Lys Cys
 1 5 10 15
 Pro Ser Leu Ser Gly Lys Pro Lys Ile Phe Phe Ile Gln Ala Cys Arg
 20 25 30
 Gly Ser Asn Phe Gln Lys Gly Val Pro Asp Glu Ala Gly Phe Glu Gln
 35 40 45
 Gln Asn His Thr
 50

<210> 52
 <211> 47

<212> PRT
 <213> Mus musculus

<400> 52
 Ser Ser His Lys Asn Tyr Ile Pro Asp Glu Ala Asp Phe Leu Leu Gly
 1 5 10 15
 Met Ala Thr Val Leu Met Cys Val Ser Tyr Arg Asp Pro Val Asn Gly
 20 25 30
 Thr Trp Tyr Ile Gln Ser Leu Cys Gln Ser Leu Arg Glu Arg Cys
 35 40 45

<210> 53
 <211> 19
 <212> PRT
 <213> Mus musculus

<400> 53
 Pro Gln Gly Asp Asp Ile Leu Ser Ile Leu Thr Gly Val Asn Tyr Asp
 1 5 10 15
 Val Ser Asn

<210> 54
 <211> 22
 <212> PRT
 <213> Mus musculus

<400> 54
 Lys Asp Asp Arg Arg Asn Lys Gly Lys Gln Met Pro Gln Pro Thr Phe
 1 5 10 15
 Thr Leu Arg Lys Lys Leu
 20

<210> 55
 <211> 260
 <212> PRT
 <213> Mus musculus

<400> 55
 Met Ala Ala Pro Ser Gly Arg Ser Gln Ser Ser Leu His Arg Lys Gly
 1 5 10 15
 Leu Met Ala Ala Asp Arg Arg Ser Arg Ile Leu Ala Val Cys Gly Met
 20 25 30
 His Pro Asp His Gln Glu Thr Leu Lys Lys Asn Arg Val Val Leu Ala
 35 40 45
 Lys Gln Leu Leu Leu Ser Glu Leu Leu Glu His Leu Leu Glu Lys Asp
 50 55 60

Ile Ile Thr Leu Glu Met Arg Glu Leu Ile Gln Ala Lys Gly Gly Ser
 65 70 75 80
 Phe Ser Gln Asn Val Glu Leu Leu Asn Leu Leu Pro Lys Arg Gly Pro
 85 90 95
 Gln Ala Phe Asp Ala Phe Cys Glu Ala Leu Arg Glu Thr Arg Gln Gly
 100 105 110
 His Leu Glu Asp Leu Leu Leu Thr Thr Leu Ser Asp Ile Gln His Val
 115 120 125
 Leu Pro Pro Leu Ser Cys Asp Tyr Asp Thr Ser Leu Pro Phe Ser Val
 130 135 140
 Cys Glu Ser Cys Pro Pro His Lys Gln Leu Arg Leu Ser Thr Asp Ala
 145 150 155 160
 Thr Glu His Ser Leu Asp Asn Gly Asp Gly Pro Pro Cys Leu Leu Val
 165 170 175
 Lys Pro Cys Thr Pro Glu Phe Tyr Gln Ala His Tyr Gln Leu Ala Tyr
 180 185 190
 Arg Leu Gln Ser Gln Pro Arg Gly Leu Ala Leu Val Leu Ser Asn Val
 195 200 205
 His Phe Thr Gly Glu Lys Asp Leu Glu Phe Arg Ser Gly Gly Asp Val
 210 215 220
 Asp His Thr Thr Leu Val Thr Leu Phe Lys Leu Leu Gly Tyr Asn Val
 225 230 235 240
 His Val Leu His Asp Gln Thr Ala Gln Glu Met Gln Glu Lys Leu Gln
 245 250 255
 Asn Phe Ala Gln
 260

<210> 56
 <211> 11
 <212> PRT
 <213> Mus musculus

<400> 56
 Leu Pro Ala His Arg Val Thr Asp Ser Val Cys
 1 5 10

<210> 57
 <211> 18
 <212> PRT
 <213> Mus musculus

<400> 57

Val Ala Leu Leu Ser His Gly Val Glu Gly Gly Ile Tyr Gly Val Asp
 1 5 10 15

Gly Lys

<210> 58
 <211> 56
 <212> PRT
 <213> Mus musculus

<400> 58
 Leu Leu Gln Leu Gln Glu Val Phe Arg Leu Phe Asp Asn Ala Asn Cys
 1 5 10 15

Pro Ser Leu Gln Asn Lys Pro Lys Met Phe Phe Ile Gln Ala Cys Arg
 20 25 30

Gly Asp Glu Thr Asp Arg Gly Val Asp Gln Gln Asp Gly Lys Asn His
 35 40 45

Thr Gln Ser Pro Gly Cys Glu Glu
 50 55

<210> 59
 <211> 53
 <212> PRT
 <213> Mus musculus

<400> 59
 Ser Asp Ala Gly Lys Glu Glu Leu Met Lys Met Arg Leu Pro Thr Arg
 1 5 10 15

Ser Asp Met Ile Cys Gly Tyr Ala Cys Leu Lys Gly Asn Ala Ala Met
 20 25 30

Arg Asn Thr Lys Arg Gly Ser Trp Tyr Ile Glu Ala Leu Thr Gln Val
 35 40 45

Phe Ser Glu Arg Ala
 50

<210> 60
 <211> 18
 <212> PRT
 <213> Mus musculus

<400> 60
 Asp Met His Val Ala Asp Met Leu Val Lys Val Asn Ala Leu Ile Lys
 1 5 10 15

Glu Arg

<210> 61
 <211> 35
 <212> PRT
 <213> Mus musculus

<400> 61
 Glu Gly Tyr Ala Pro Gly Thr Glu Phe His Arg Cys Lys Glu Met Ser
 1 5 10 15
 Glu Tyr Cys Ser Thr Leu Cys Gln Gln Leu Tyr Leu Phe Pro Gly Tyr
 20 25 30
 Pro Pro Thr
 35

<210> 62
 <211> 31
 <212> PRT
 <213> Mus musculus

<400> 62
 Met Glu Ser Glu Met Ser Asp Pro Gln Pro Leu Gln Glu Glu Arg Tyr
 1 5 10 15
 Asp Met Ser Gly Ala Arg Leu Ala Leu Thr Leu Cys Val Thr Lys
 20 25 30

<210> 63
 <211> 74
 <212> PRT
 <213> Mus musculus

<400> 63
 Ala Arg Glu Gly Ser Glu Val Asp Met Glu Ala Leu Glu Arg Met Phe
 1 5 10 15
 Arg Tyr Leu Lys Phe Glu Ser Thr Met Lys Arg Asp Pro Thr Ala Gln
 20 25 30
 Gln Phe Leu Glu Glu Leu Asp Glu Phe Gln Gln Thr Ile Asp Asn Trp
 35 40 45
 Glu Glu Pro Val Ser Cys Ala Phe Val Val Leu Met Ala His Gly Glu
 50 55 60
 Glu Gly Leu Leu Lys Gly Glu Asp Glu Lys
 65 70

<210> 64
 <211> 56
 <212> PRT
 <213> Mus musculus

<400> 64

Met Val Arg Leu Glu Asp Leu Phe Glu Val Leu Asn Asn Lys Asn Cys
 1 5 10 15

Lys Ala Leu Arg Gly Lys Pro Lys Val Tyr Ile Ile Gln Ala Cys Arg
 20 25 30

Gly Glu His Arg Asp Pro Gly Glu Glu Leu Arg Gly Asn Glu Glu Leu
 35 40 45

Gly Gly Asp Glu Glu Leu Gly Gly
 50 55

<210> 65

<211> 53

<212> PRT

<213> Mus musculus

<400> 65

Asp Glu Val Ala Val Leu Lys Asn Asn Pro Gln Ser Ile Pro Thr Tyr
 1 5 10 15

Thr Asp Thr Leu His Ile Tyr Ser Thr Val Glu Gly Tyr Leu Ser Tyr
 20 25 30

Arg His Asp Glu Lys Gly Ser Gly Phe Ile Gln Thr Leu Thr Asp Val
 35 40 45

Phe Ile His Lys Lys
 50

<210> 66

<211> 15

<212> PRT

<213> Mus musculus

<400> 66

Ile Leu Glu Leu Thr Glu Glu Ile Thr Arg Leu Met Ala Asn Thr
 1 5 10 15

<210> 67

<211> 8

<212> PRT

<213> Mus musculus

<400> 67

Glu Val Met Gln Glu Gly Lys Pro
 1 5

<210> 68

<211> 18

<212> PRT

<213> Mus musculus

<400> 68

Arg Lys Val Asn Pro Glu Val Gln Ser Thr Leu Arg Lys Lys Leu Tyr
 1 5 10 15

Leu Gln

<210> 69

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer derived from mouse caspase-14 cDNA

<400> 69

atatgatatg tcaggtgccc g

21

<210> 70

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer derived from mouse caspase-14 cDNA

<400> 70

ttccggaggg tgctttgga

19

<210> 71

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer derived from human caspase-14 cDNA

<400> 71

cctgtatgat gtacaccttg g

21

<210> 72

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer derived from human caspase-14 cDNA

<400> 72

agagattctc cagcttgac

19

<210> 73

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer derived from human caspase-14 cDNA

<400> 73

atcttctccc ttgaggaag

19

<210> 74

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer derived from human caspase-14 cDNA

<400> 74

atatgatatg tcaggtgccc g

21

<210> 75

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer derived from human caspase-14 cDNA

<400> 75

caaggtgtac atcatacagg

20

<210> 76

<211> 850

<212> DNA

<213> Mus musculus

<220>

<221> modified_base

<222> (537)

<223> Where n is Adenine, Cytosine, Guanin or Thymidine

<400> 76

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gtgcgaggc ggggtgagcag gccactctgt ctccggtttg tttccacgac tttcgggtctg 60
tacctcagtc tctactcact aggagtcggt aacgtcctcc tttctatact atacagtcca 120
cgggcgagcc gggactgcga cacacagtgg tttcgggccc tccaaggct ccatctgtac 180
ctccgggacc ttgcgtacaa ggcaatggac tttaaacttt cgtggtactt ctccctaggg 240
tgggcggtcg ttaaagacct tctcaaccta cttaaagtcg tctggtatct attaaccctt 300
ctcggacagt cgacacggaa acaccatgag taccgtgtac cactccttcc ggaggagttc 360
cctcttctac tcttctacca gtctgatctt ctggaaaaac ttcagaactt gttgttcttg 420
acgttccggg actctccgtt cggtttccac atgtagtagg tccgaacatc tcctctcgtg 480
tctctggggc cactccttga tgcaccttta ctccttgatc cacctctact ccttgancca 540
cctctactcc aacgacacga gttcttggtg ggggtttcat agggttggat atgcctatgg 600
gaggtgtaga tgaggtgcca tctcccatg gagaggatat ctgtactgct ctttccgaga 660
ccgaagtagg tctgggactg cctacacaag taagtatttt ttcctaggta gaatcttgac 720
tgtcttctct agtgggctga ataccgtttg tgccctcact acgtccttcc ttttggttcc 780
tttcacttgg gacttcaggt ttcgtgggag gccttcttcg agataaacgt tattttctct 840
cccgtcccta                                     850
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<210> 77

<211> 16

<212> PRT

<213> Mus musculus

<400> 77

His	Ala	Ser	Ala	His	Ala	Ser	Gly	Glu	Thr	Glu	Ala	Lys	Gln	Arg	Cys
1				5					10					15	

<210> 78

<211> 5

<212> PRT

<213> Mus musculus

<400> 78

Lys	Arg	Gly	Gln	Gly
1				5